

1.5SMC10AS ~ 1.5SMC250CAS Series

Transient Voltage Suppressor

Voltage 10~250 V **Power** 1500 W

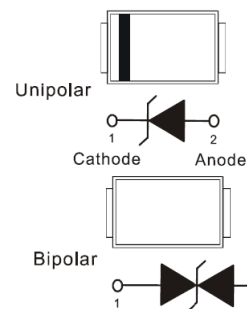
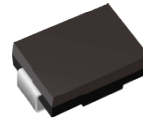
Features

- Fast response time
- Low incremental surge resistance
- Ultra thin profile package for space constrained utilization.
- High temperature soldering : 260°C /10 seconds at terminals
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: Molded plastic, SMC
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0082 ounces, 0.2325 grams

SMC



Maximum Ratings and Thermal Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power Dissipation(tp = 10 / 1000 us)	P _{PP} ^{(1) (2)}	1500	W
Peak Pulse Current on tp = 10 / 1000 us waveform ^(Fig.2)	I _{PPM} ⁽¹⁾	See table 1	A
Power Dissipation on Infinite Heat Sink at T _L = 50 °C	P _D	6.5	W
ESD IEC61000-4-2(Air)	V _{ESD}	±15	kV
ESD IEC61000-4-2(Contact)		±8	
Typical Thermal Resistance Junction to Ambient	R _{θJA} ⁽³⁾	125	°C/W
Operating Junction Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C



1.5SMC10AS ~ 1.5SMC250CAS Series

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Part Number		V _{RWM}	V _{BR}			I _R		V _C @I _{PP}		Marking Code	
			Min.	Max.	I _T	μA					
UNI	BI	V	V	V	mA	UNI	BI	V	A	UNI	BI
1500W Transient Voltage Suppressor											
1.5SMC10AS	1.5SMC10CAS	8.55	9.5	10.5	1	10	20	14.5	103	MC10AS	MC10CAS
1.5SMC11AS	1.5SMC11CAS	9.4	10.5	11.6	1	5	10	15.6	96	MC11AS	MC11CAS
1.5SMC12AS	1.5SMC12CAS	10.2	11.4	12.6	1	5	5	16.7	90	MC12AS	MC12CAS
1.5SMC13AS	1.5SMC13CAS	11.1	12.4	13.7	1	1	1	18.2	82	MC13AS	MC13CAS
1.5SMC15AS	1.5SMC15CAS	12.8	14.3	15.8	1	1	1	21.2	71	MC15AS	MC15CAS
1.5SMC16AS	1.5SMC16CAS	13.6	15.2	16.8	1	1	1	22.5	67	MC16AS	MC16CAS
1.5SMC18AS	1.5SMC18CAS	15.3	17.1	18.9	1	1	1	25.2	59.5	MC18AS	MC18CAS
1.5SMC20AS	1.5SMC20CAS	17.1	19	21	1	1	1	27.7	54	MC20AS	MC20CAS
1.5SMC22AS	1.5SMC22CAS	18.8	20.9	23.1	1	1	1	30.6	49	MC22AS	MC22CAS
1.5SMC24AS	1.5SMC24CAS	20.5	22.8	25.2	1	1	1	33.2	45	MC24AS	MC24CAS
1.5SMC27AS	1.5SMC27CAS	23.1	25.7	28.4	1	1	1	37.5	40	MC27AS	MC27CAS
1.5SMC30AS	1.5SMC30CAS	25.6	28.5	31.5	1	1	1	41.4	36	MC30AS	MC30CAS
1.5SMC33AS	1.5SMC33CAS	28.2	31.4	34.7	1	1	1	45.7	33	MC33AS	MC33CAS
1.5SMC36AS	1.5SMC36CAS	30.8	34.2	37.8	1	1	1	49.9	30	MC36AS	MC36CAS
1.5SMC39AS	1.5SMC39CAS	33.3	37.1	41	1	1	1	53.9	28	MC39AS	MC39CAS
1.5SMC43AS	1.5SMC43CAS	36.8	40.9	45.2	1	1	1	59.3	25.3	MC43AS	MC43CAS
1.5SMC47AS	1.5SMC47CAS	40.2	44.7	49.4	1	1	1	64.8	23.2	MC47AS	MC47CAS
1.5SMC51AS	1.5SMC51CAS	43.6	48.5	53.6	1	1	1	70.1	21.4	MC51AS	MC51CAS
1.5SMC56AS	1.5SMC56CAS	47.8	53.2	58.8	1	1	1	77	19.5	MC56AS	MC56CAS
1.5SMC62AS	1.5SMC62CAS	53	58.9	65.1	1	1	1	85	17.7	MC62AS	MC62CAS
1.5SMC68AS	1.5SMC68CAS	58.1	64.6	71.4	1	1	1	92	16.3	MC68AS	MC68CAS
1.5SMC75AS	1.5SMC75CAS	64.1	71.3	78.8	1	1	1	103	14.6	MC75AS	MC75CAS
1.5SMC82AS	1.5SMC82CAS	70.1	77.9	86.1	1	1	1	113	13.3	MC82AS	MC82CAS
1.5SMC91AS	1.5SMC91CAS	77.8	86.5	95.5	1	1	1	125	12	MC91AS	MC91CAS
1.5SMC100AS	1.5SMC100CAS	85.5	95	105	1	1	1	137	11	MC1AAS	MC1ACAS
1.5SMC110AS	1.5SMC110CAS	94	105	116	1	1	1	152	9.9	MC1BAS	MC1BCAS
1.5SMC120AS	1.5SMC120CAS	102	114	126	1	1	1	165	9.1	MC1CAS	MC1CCAS
1.5SMC130AS	1.5SMC130CAS	111	124	137	1	1	1	179	8.4	MC1DAS	MC1DCAS
1.5SMC150AS	1.5SMC150CAS	128	143	158	1	1	1	207	7.2	MC1EAS	MC1ECAS



1.5SMC10AS ~ 1.5SMC250CAS Series

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Part Number		V _{RWM}	V _{BR}			I _R		V _C @I _{PP}		Marking Code	
			Min.	Max.	I _T	μA					
UNI	BI	V	V	V	mA	UNI	BI	V	A	UNI	BI
1500W Transient Voltage Suppressor											
1.5SMC160AS	1.5SMC160CAS	136	152	168	1	1	1	219	6.8	MC1FAS	MC1FCAS
1.5SMC170AS	1.5SMC170CAS	145	162	179	1	1	1	234	6.4	MC1GAS	MC1GCAS
1.5SMC180AS	1.5SMC180CAS	154	171	189	1	1	1	246	6.1	MC1HAS	MC1HCAS
1.5SMC200AS	1.5SMC200CAS	171	190	210	1	1	1	274	5.5	MC2IAS	MC2ICAS
1.5SMC220AS	1.5SMC220CAS	185	209	231	1	1	1	328	4.6	MC2JAS	MC2JCAS
1.5SMC250AS	1.5SMC250CAS	214	237	263	1	1	1	344	4.5	MC2KAS	MC2KCAS

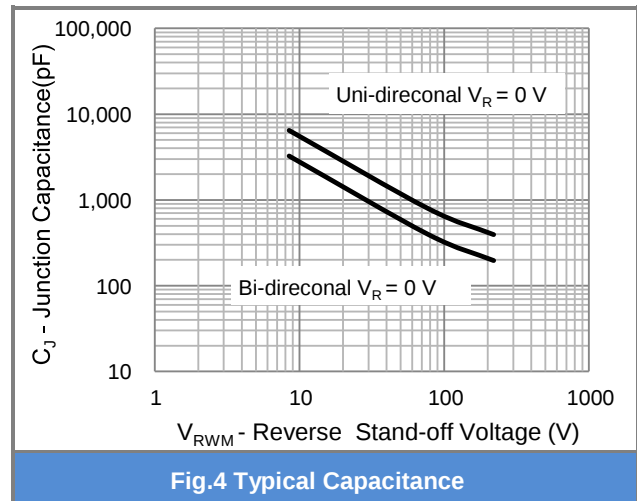
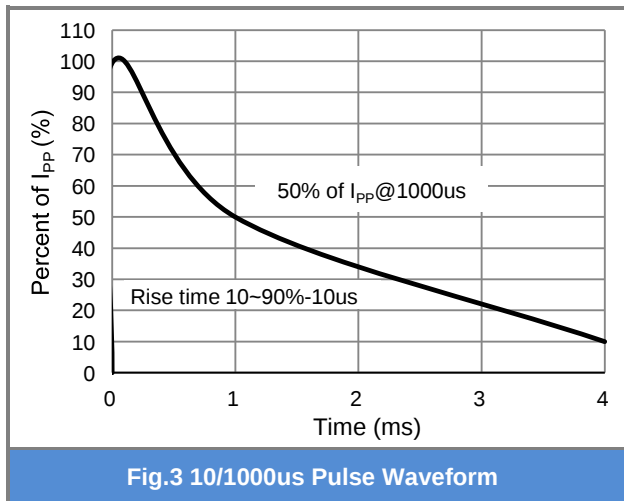
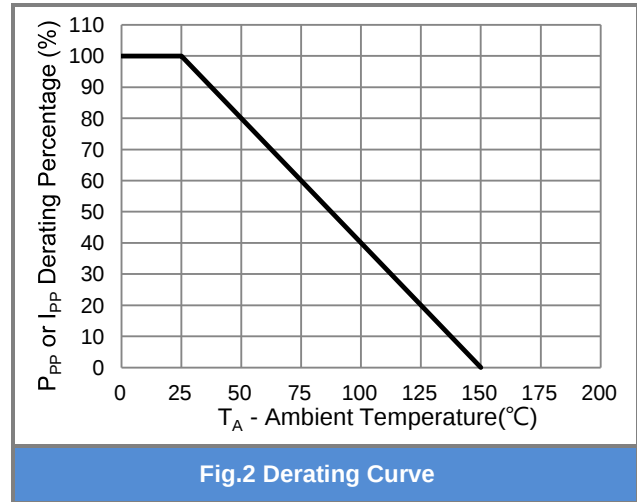
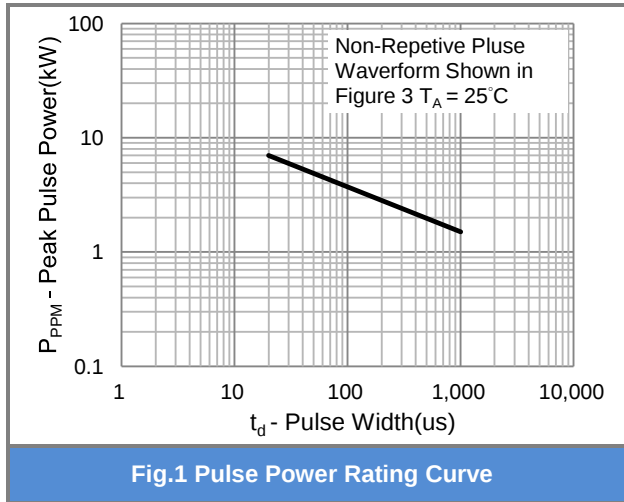
Note:

1. Non-repetitive current pulse, per Fig.3 and derated above $T_A=25^\circ\text{C}$ per Fig.2
2. Mounted on 100cm² copper pads to each terminal
3. Mounted on a FR4 PCB, single-sided copper, mini pad



1.5SMC10AS ~ 1.5SMC250CAS Series

TYPICAL CHARACTERISTIC CURVES



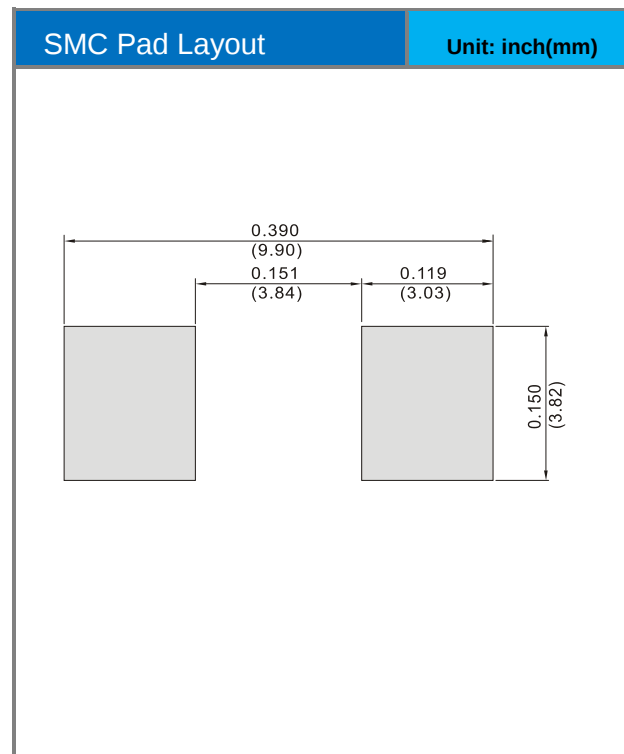
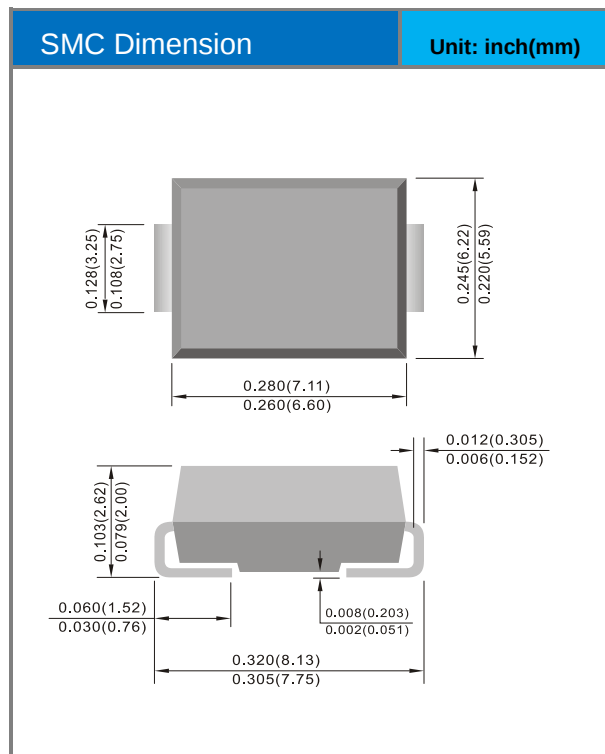


1.5SMC10AS ~ 1.5SMC250CAS Series

Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
1.5SMCxxxxAS_R1_00001	SMC	0.8K pcs / 7" reel	See Table	Halogen free

Packaging Information & Mounting Pad Layout





1.5SMC10AS ~ 1.5SMC250CAS Series

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Panjit:

[1.5SMC43AS_R1_00001](#)